WEAPON SYSTEM ACQUISITION REFORM
PRODUCT SUPPORT ASSESSMENT – INFLUENCE ON PROGRAM COST MANAGEMENT

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Materiel Readiness- Strategies and Plans Branch

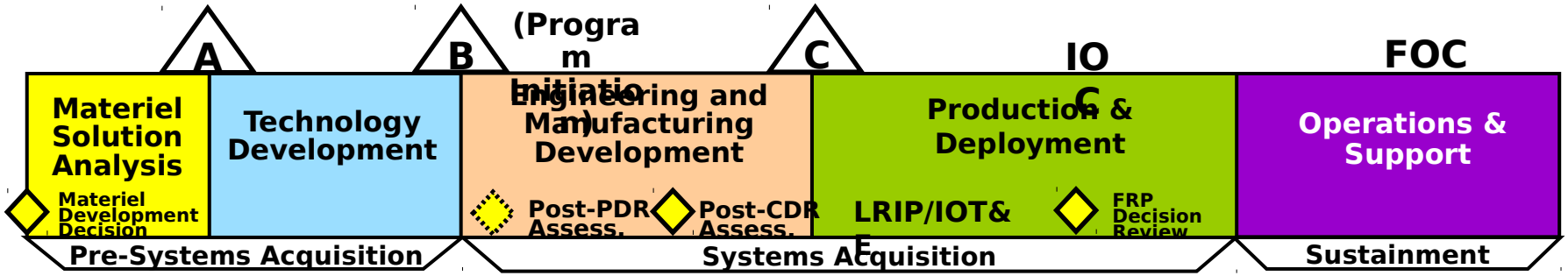
2011 DAU ACQUISITION COMMUNITY SYMPOSIUM

Agenda

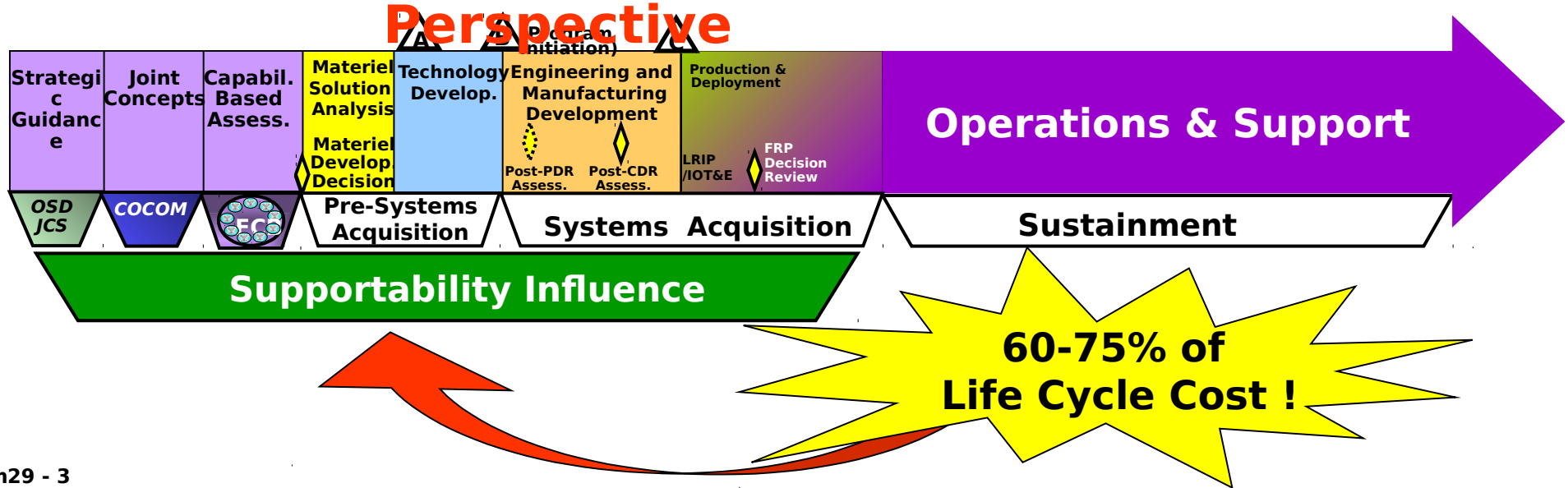
- WEAPON SYSTEM LIFE CYCLE MANAGEMENT ADVOCACY
- THE PRODUCT SUPPORT JOURNEY
- NEXT GENERATION PRODUCT SUPPORT STRATEGY
  - PRODUCT SUPPORT ASSESSMENT TEAM IMPLEMENTATION
  - BETTER BUYING POWER CONNECTION
  - PERFORMANCE BASED LOGISTIC STRATEGIES
- SUMMARY

Life Cycle Management Framework

Traditional Acquisition Perspective



Life Cycle Management Perspective

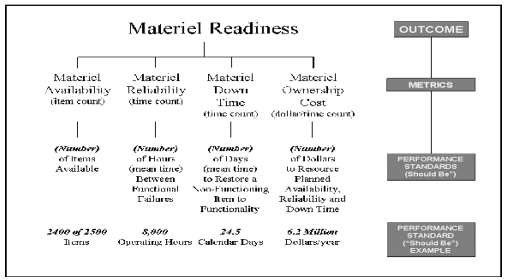


fe Cycle Management Interfaces

POLICY
- CJCSI 3170
- DoD 5000 update

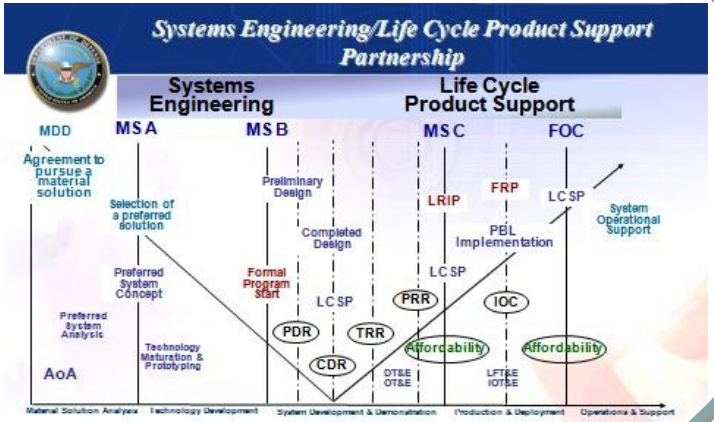
GUIDANCE
- Defense Acquisition Guide (DAG)
- Defense Acquisition Program Support Methodology
- System Engineering Plan (SEP) Prep Guide
- RAM-C Manual
- MIL-HDBK 217 Update

METRICS


Materiel Readiness
Materiel Availability (item count)
Materiel Reliability (time count)
Materiel Down Time (time count)
Materiel Ownership Cost (dollar/time count)
(Number) of Items Available
(Number) of Hours (mean time) Between Functional Failures
(Number) of Days (mean time) to Restore a Non-Functioning Item to Functionality
(Number) of Dollars to Resource Planned Availability, Reliability and Down Time
2400 of 2500 Items
8,000 Operating Hours
24.5 Calendar Days
6.2 Million Dollars/year
OUTCOME
METRICS
PERFORMANCE STANDARDS (Should Be")
PERFORMANCE STANDARD ("Should Be") EXAMPLE

O&S COST MANAGEMENT
- R-TOC
- NDIA SE Committee

DAE REVIEWS
- Defense Acquisition Boards (DABs)
- IPRs



System Engineering/Life Cycle Product Support Partnership is ESSENTIAL for Effective Life Cycle Management

REPORTING
- DAES
- DAMIR
- Sustainment Quad Chart

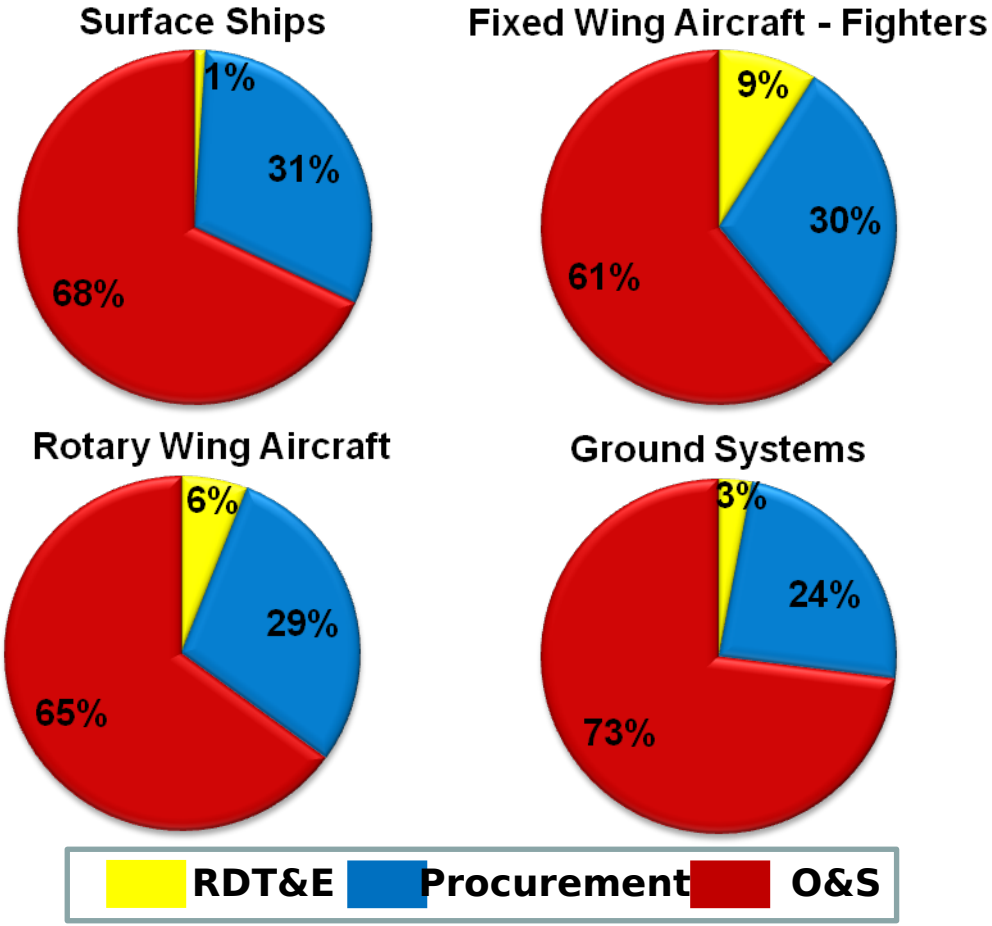
REVIEWS/ASSESSMENTS
- Program Support Reviews (PSR)
- Assessment for Operational Test Readiness (AOTR)
- SEP Reviews
- Nunn-McCurdy Reviews

ACQUISITION REFORM INITIATIVES
- Public Law 111-23 (DTM 09-027)
- Public Law 111-24 (DTM 10-015)
- Countering Counterfeits T2
- WSAR PSA Report
- DT&E/SE Annual Rpt to Congress
- Next Steps to Improve Reliability
- Human Capital

Life Cycle Management- Total Ownership Cost

TOC National Interest:

- ✓ **WSARA – May ’09**
- ✓ **CAPE Report to Congress**
- ✓ **GAO Report**
- ✓ **WSAR PSA – Nov ’09**
- ✓ **Service Initiatives/BCAs**
- ✓ **QDR**
- ✓ **Budget Pressures**



TOC influence and management critical in Weapons Acquisitio

Source: CAPE, June 2009

The Product Support Journey

Policy → Adoption → NextGe

PSAT Implementation

1998

Section 912, 1998 NDAA: DoD to report to Congress on Product Support Reengineering

F-117, APU PBLs

1999

Product Support Reengineering Report to Congress

30 RTOC Pilot Programs

2001

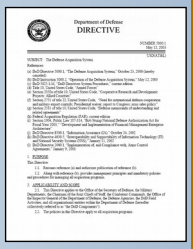
DoD QDR mandates "PBL" – First official Use of Term

Product Support for the 21st Century:
DEFENSE ACQUISITION UNIVERSITY
Performance Based Logistics:
A Program Manager's Product Support Guide

Program Managers Guidebook published

2003

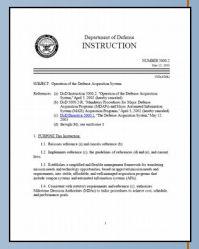
DoD 5000 policy updated: PBL is "preferred" Support Strategy



ACAT 1 & 2 to use PBL or justify non-use

2008

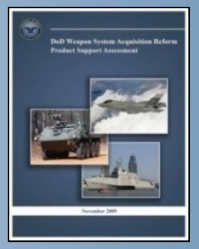
Revised DoDI 5000.2 Issued



Product Support Assessment Team Launched

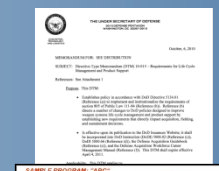
2009

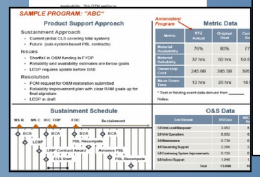
DoD Weapon System Acquisition Reform Product Support Assessment



DoD WSAR-PSA Implementation

2010





PSM Section 805 Implementation, Proof Point Assessment Phase 1, Institutionalization of Sustainment Quad Chart

2011

PSM, BCA, ILA, Post-IOC Review Guidebooks; Proof Point Assessment Phase 2

2012

Next Generation

WSARA Product Support Assessment

Purpose

Start and End with the Warfighter's Objectives
Demonstrate and Enforce Life Cycle Focus
Build Mutually Beneficial Partnerships
Incentivize Accountability for Performance
Enterprise Means Enterprise (and Joint Means Joint)
Aligned and synchronized operational, acquisition, and sustainment communities working together to deliver required and affordable Warfighter outcomes

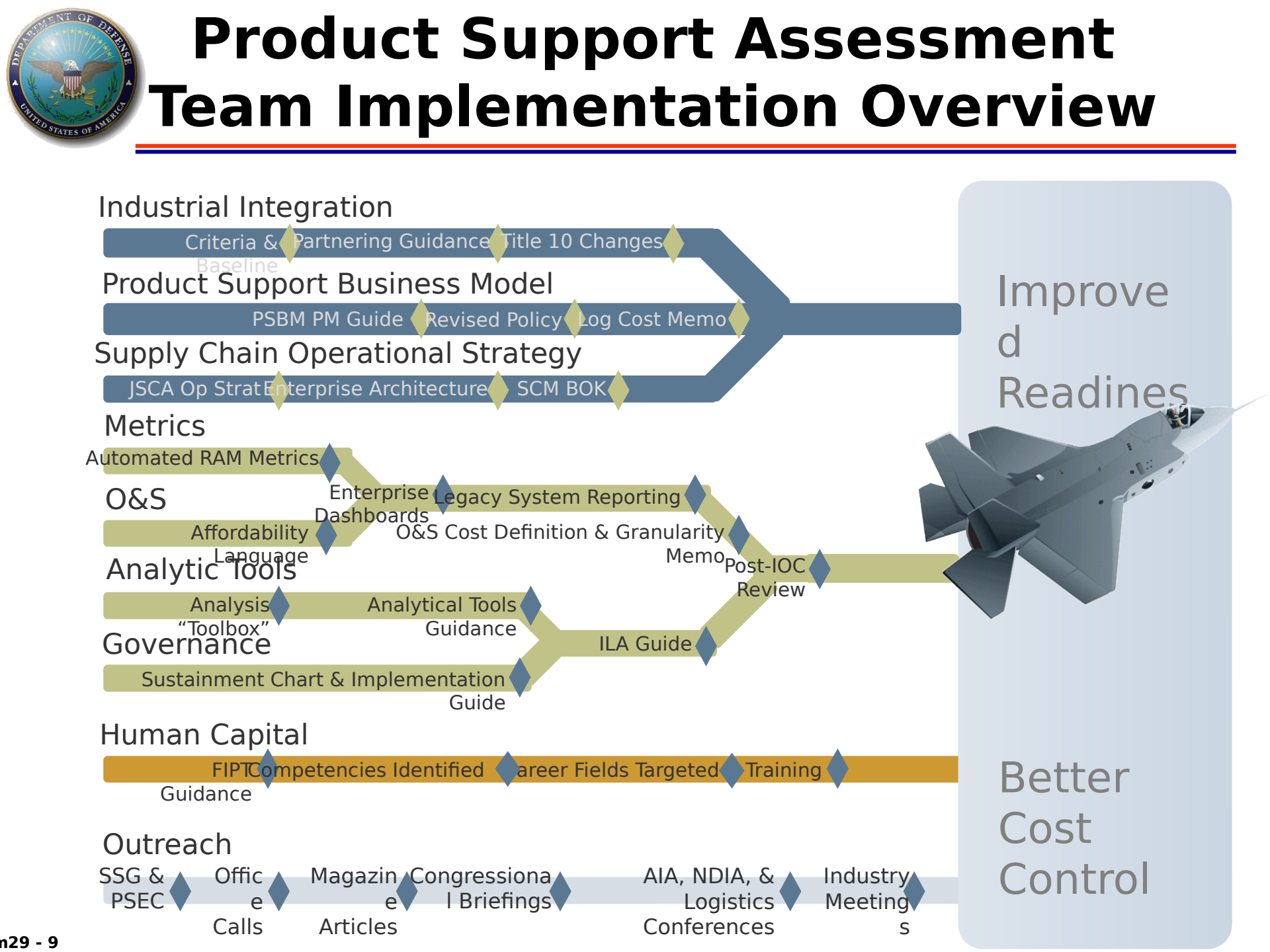
- **Recommends to senior leadership improvement of existing weapon system sustainment strategy**
- **Encompasses operational, acquisition, and sustainment communities**
- **Complements Weapon System Acquisition Reform Act with perspectives attentive to life cycle management and sustainment**
- **Provides recommendations to improve weapon system readiness and control life cycle cost**

- ✓ ***Senior Steering Group strongly endorsed report and way ahead***
- ✓ ***Final report signed by USD(AT&L) on November 12, 2009***
- ✓ ***Implementation planning and actions underway***

WSARA- Product Support Assessment Root Cause Identification

- **Inconsistent, inaccurate and unavailable data for proper life cycle decision making (especially cost)**
- **Poor integration of various stakeholders creating considerable inefficiencies (to include defense industrial base)**
- **Inconsistent / ineffective BCA process**
- **No standard business model for product life cycle support**
- **Governance structure did not support product life cycle support thinking**
- **Need for common lexicon, metrics and methodology for assessing the DoD end-to-end supply chain**
- **Skills and talents need to be better developed to drive the necessary cultural change**

Product Support Assessment Team Implementation Overview



PSAT Influence is Apparent In The Logistics Strategy Plan

Strategic Management Plan (2010)

Objective 5.2-2C: Protect critical DoD infrastructure and partner with other critical infrastructure owners in government and the private sector to increase mission assurance.

Objective 5.3-2E: Improve acquisition processes, from requirements definition to the execution phase, to acquire military-unique and commercial items.

Objective 5.4-2L: Provide more effective and efficient logistical support to forces abroad.

Logistics Strategic Plan (2010)

Goal 1: Provide Logistics Support In Accordance with Warfighters' Requirements

Goal 2: Institutionalize operational contract support

Goal 3: Ensure supportability, maintainability & costs are considered throughout the acquisition cycle

Goal 4: Improve supply chain processes, synchronizing from end-to-end & adopting challenging but achievable standards for each element of the supply chain

PSAT - 10 Long-Term Indicators

Current acquisition reform legislative and policy initiatives are life cycle management focused.

Operations and support costs are visible today at the Program, Service, and DoD levels and are currently managed in conjunction with acquisition investment costs to make life cycle cost decisions.

Sustainment governance is influencing Defense Acquisition Boards and related weapon system review forums.

Product support is transparent to the Warfighter, while simultaneously Warfighters are more active and integral in advocating affordable, readiness-based product support objectives.

Most supply chains are currently performing at best-in-class levels and are integrated to achieve weapon system management operational outcomes.

Program Managers are currently equipped by life cycle management enablers consistent with PM accountability and responsibility to focus on life cycle cost and readiness.

DoD Service Component organizations are more capable now of managing the complex incentives and product support integration inherent in effective performance-based strategies.

Expanded partnering opportunities have driven industry to routinely include life cycle cost and performance management in the design of weapon systems and enable more robust, integrated organic and commercial industrial base product support.

Product support capability assessments are performed at national and global levels and have a broad and encompassing view of both public and private capability.

Most enterprise perspectives account for multiple DoD

PSAT Initiatives & "Better Buying Power"

	LA	Post-IOC Review	BCA	PSM	Sec 805 Memo	JSCA	Sustainment Chart	Human Capital	Industrial Integration
Target Affordability and Control Cost Growth	X	X	X	X	X	X	X	X	
Incentivize Productivity and Innovation in Industry			X	X	X				X
Promote Real Competition			X	X	X			X	X
Improve Tradecraft in Services Acquisition			X	X				X	
Reduce Non-Productive Processes and Bureaucracy			X			X		X	

Product Support Manager

PSAT Commitment

- Revise product support policy to incorporate the Product Support Business Model
- Prepare a guidebook for Program Managers (PMs)/ Product Support Managers (PSMs) on how to improve product support management and implement new policy

Status

- PDUSD (AT&L) signed the *DTM 10-015, Requirements for Life Cycle Management and Product Support* on 6 October 2010
- Staffing PSM Guidebook
- Developed Integrated Product Support Elements (replaces traditional ILS elements)

CY 2011 Next Steps

- **Publish PSM Guidebook**
- Convert guidebook into a web-enabled document and link to supporting documents
- Collect feedback from the PSM user community and incorporate recommended changes to plan for Revision 1

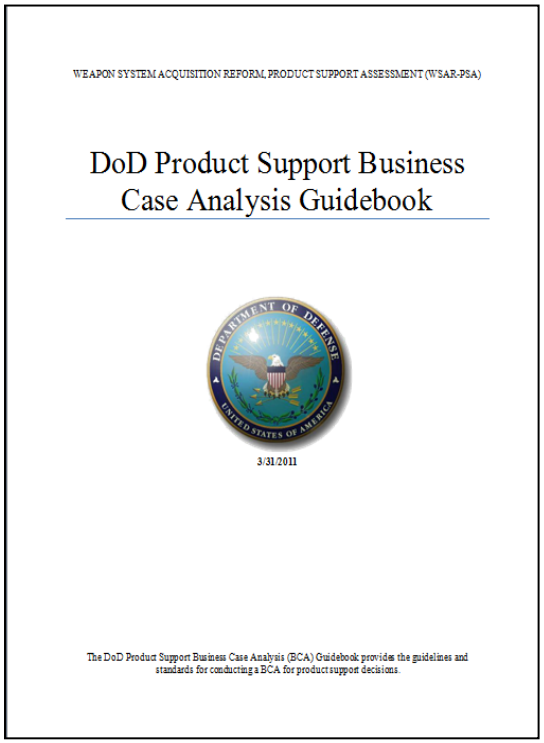
Business Case Analysis

PSAT Commitment

- Address documented shortfalls of the DoD Business Case Analysis (BCA) process to support decision making
- Prepare a standardized DoD Product Support BCA template to provide guidance to teams conducting BCAs
- Create an analytical tool “Tool Box” for use in product support decision-making

Status

- Staffing DoD Product Support BCA Guidebook
- Vetting the initial list of analytical tools that will comprise the “Tool Box” by product support community


WEAPON SYSTEM ACQUISITION REFORM, PRODUCT SUPPORT ASSESSMENT (WSAR-PSA)
DoD Product Support Business Case Analysis Guidebook
3/31/2011
The DoD Product Support Business Case Analysis (BCA) Guidebook provides the guidelines and standards for conducting a BCA for product support decisions.

CY 2011 Plan

- **Publish DoD Product Support BCA Guidebook**
- Convert DoD Product Support BCA Guidebook into a web-enabled document and link to supporting documents
- Collect feedback from the BCA user community and incorporate recommended changes to plan for Revision 1
- **Work with DAU to identify and publish analytical tools for product support**

Supply Chain Operational Strategy

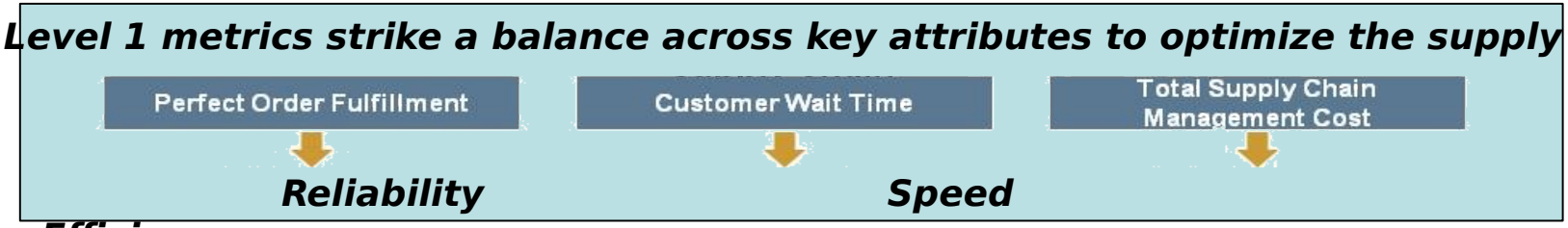
PSAT Commitment

- Develop enabling actions and guidance to transition weapon system product support strategies to outcome-based approaches using enterprise-focused supply chain management practices

Status

- Drafted Institutionalization Plan for Joint Supply Chain Architecture (JSCA) – (SCI and Joint Staff J-4 led)
- Developed JSCA (SCOR®-based) end-to-end supply chain lexicon and performance metrics and demonstrated incredible success on 4 pilot

JSCA Level 1 metrics strike a balance across key attributes to optimize the supply chain



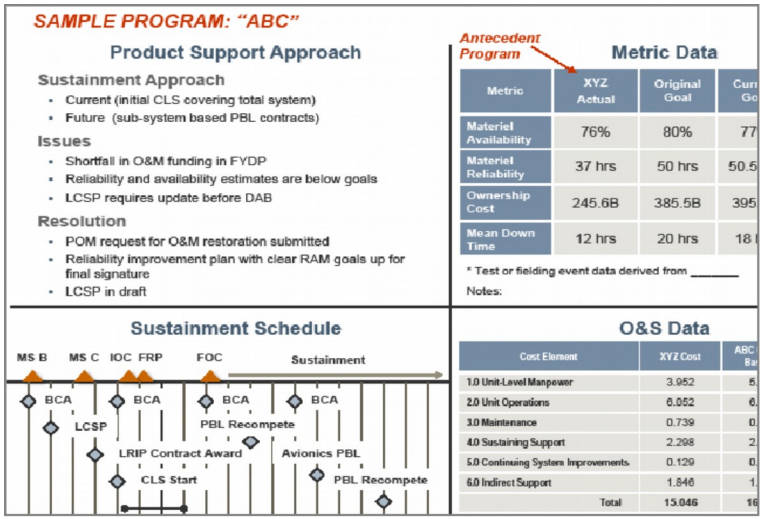
CY 2011 Plan

- **Finalize and implement Institutionalization Plan**
- Prioritize and execute enterprise opportunities

Governance-Sustainment Metrics

PSAT Commitment

- Use existing metrics to catalyze sustainment strategies and trigger continuous supportability analysis
- Create a quad chart that can be used to assess the health and direction of sustainment



Status

- Sustainment Quad Chart implemented. The chart includes strategy, schedule, and sustainment metrics (which include O&S costs)

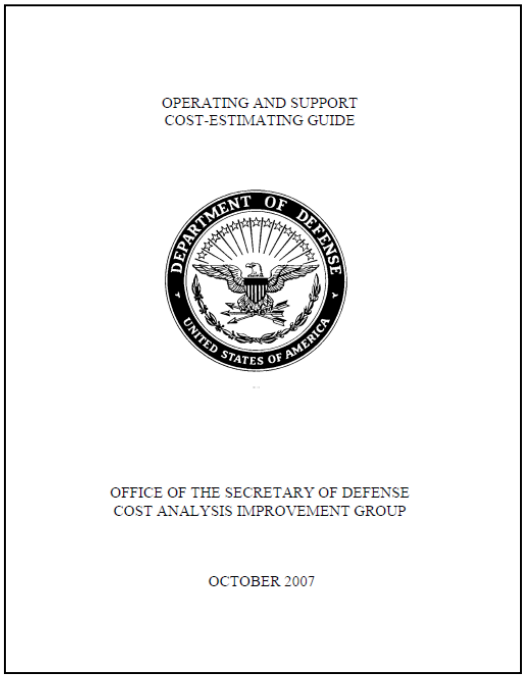
CY 2011 Plan

- Continue working with ARA to strengthen usage of standard templates
- Work with ARA to integrate antecedent and legacy information into the data system
- Linking Sustainment Quad Chart to Requirements and Portfolio Management
- Make the Sustainment Quad Chart a standard Service management tool for managing programs

Operations and Support Cost

PSAT Commitment

- Standardize Operations and Support (O&S) cost nomenclature and provide guidance on collecting, retaining, and using the O&S cost information
- Formalize logistics and product support cost structure to be used as the baseline to assess future improvement



Status

- Assembled Sub-IPT team members and strategy for CY 2011 actions
- Established two component teams to focus on nomenclature, data retention, and mapping the as-is decision making nodes that affect O&S cost decisions

CY 2011 Plan

- **AT&L and Service Components are partnering with CAPE to expand and update the 2007 CAIG Cost-Estimating Guide**
- **O&S Nomenclature (Common) developed and**

PBL Strategies - Life Cycle Support Enabler

Program	Description	Service	Type	Cost	Performance
E-8 Joint STARS	Command and control aircraft: Tracks ground vehicles & aircraft, collects imagery, relays tactical pictures to theater commanders.	Air Force	System	↓	↑
AN/ALQ-126B ECS	Radar Deception Electronic Counter Measure : Air-to-Air and Surface-to-Air Missile Jammer.	Navy	Sub-System	↓	↑
ALR-67 RWR	Threat warning system for tactical aircraft system: Detects, identifies and displays radars and radar-guided weapon systems, coordinates its operation with onboard radars, data links, jammers, etc.	Navy	Sub-System	↓ ■ ■	→ * ■ ■
H-60 FLIR	Forward Looking Infrared System for H-60: Detects, tracks, classifies, identifies and targets fast patrol boats, mine-laying craft, etc.	Navy	Sub-System	↓ ■	↑ ■
F/A-18 Displays	Head Up Display (HUD): dashboard providing easy-to-read situational awareness, navigation, and sensor data.	Navy	Component	↓ ■	↑ ■
F404 Engine	Powers multiple aircraft from low-level attack to high-altitude interceptors.	Navy	Sub-System	↓ ■	↑ ■
AH-64D Apache	Multi-mission attack helicopter with advanced, accurate battlefield weapon-delivery platform.	Army	Sub-System	↓	↑
HIMARS	High-Mobility Artillery Rocket System: Multiple-launch rocket system on a wheeled chassis.	Army	System	↓	→ *
ITAS	Improved Target Acquisition System: Anti-tank missile targeting system w/Forward-Looking Infrared technology.	Army	Sub-System	↓	→ *
Shadow 200 Tactical UAS	Unmanned Air Vehicle System: Locates and identifies targets and transmits data back to ground control.	Army	System	↓	↑

Deep Dive PBL

■ Data Received Not Validated, will be completed in Phase II

* No Pre-PBL Support / Performance Exceeding PBL expectations

Product Support Competencies

PSAT Commitment

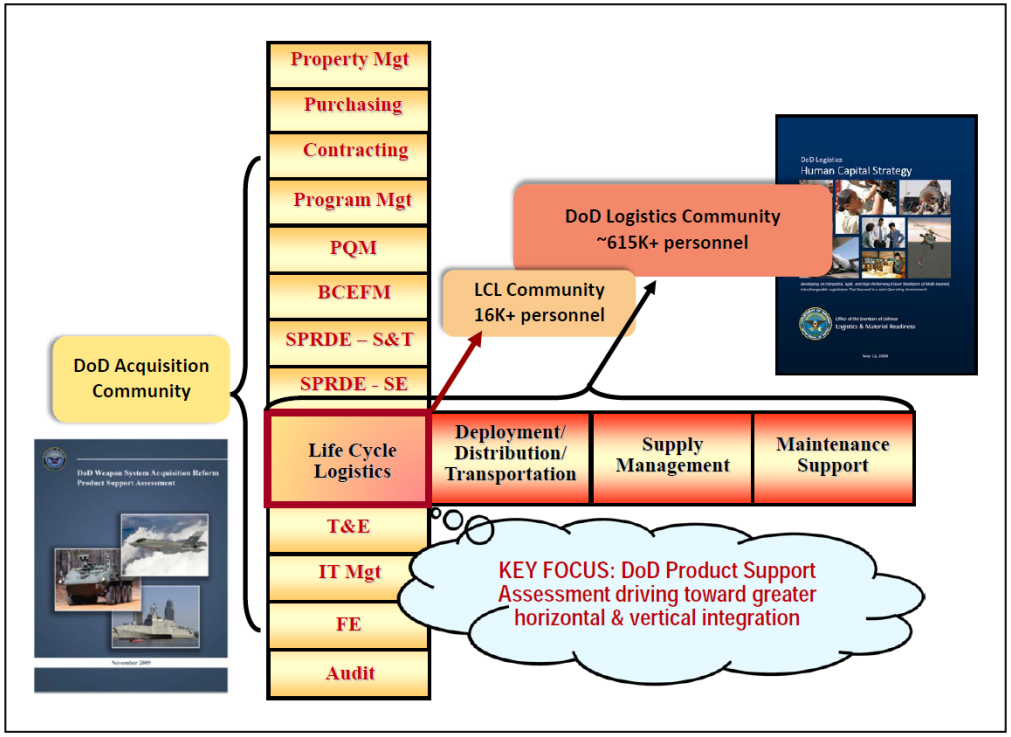
- Implement an integrated approach to DoD and industry workforce capable of delivering outcome-based life cycle product support

Status

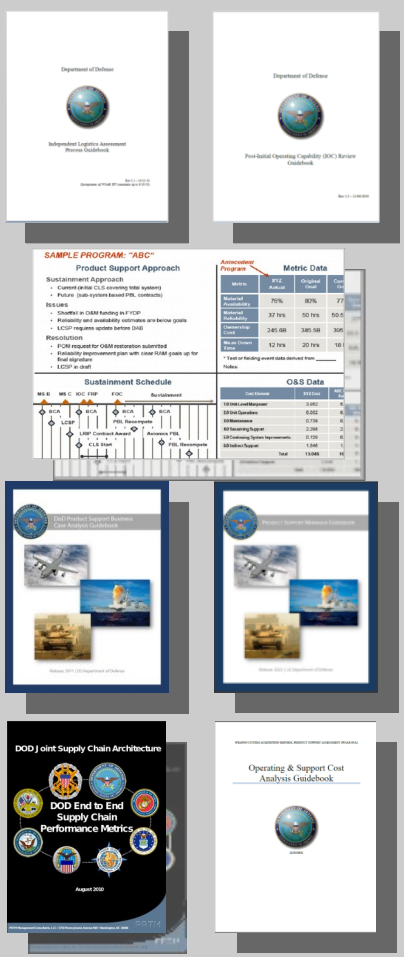
- Finalized PSM and Key Leadership Position (KLP) Competencies

CY 2011 Plan

- Continue to **drive integration of acquisition and sustainment** through update of existing DAU LOG 350 "*Enterprise Life Cycle Logistics Management*" course and a future LOG 4xx "*Product Support Manager*" course based on validation of PSM competencies
- Drive product support competencies into other



PSAT- Goal Optimize Product Support Throughout The Life Cycle


Department of Defense
Independent Logistics Assessment Process Guidebook
Department of Defense
Post-Initial Operating Capability (IOC) Review Guidebook
SAMPLE PROGRAM: "ABC"
Product Support Approach
Sustainment Approach
Current (initial CLS covering total system)
Future (sub-system based PBL contracts)
Issues
Shortfall in O&M funding in FYDP
Reliability and availability estimates are below goals
LCSP requires update before DAB
Resolution
POM request for O&M restoration submitted
Reliability improvement plan with case RAM goals up for final signature
LCSP in draft
Annexation Program
Metric Data
Sustainment Schedule
O&S Data
DOD Joint Supply Chain Architecture
DOD End to End Supply Chain Performance Metrics
August 2010
Operating & Support Cost Analysis Guidebook

1. Standardization of estimates, metrics and processes
2. Transparent, validated, consistent data and decision making
3. Optimized and defendable life cycle

Cost Reduction Of Programs

Utilizing the PSAT products properly reduces Program costs

Summary

- **Life Cycle Management Enables Effective/Affordable Weapons Systems**
- **WSARA - PSA is the Driving Force behind Next Generation Product Support Strategies**
  - **Greater Commitment for Product Life Cycle Support (Enterprise Vision)**
  - **Developing tools/processes to equip the Product Support Manager**
  - **Alignment with Better Buying Power Initiatives**

THANK YOU

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DASD- Materiel Readiness

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